reduces the capacity within the circulation system and increases delays and queuing along Ralston Avenue and El Camino Real.

Along El Camino Real, the existing four travel lanes do not provide adequate capacity to handle peak hour loads. Further, the train service restricts the movement of traffic to and from Ralston Avenue during train interrupt cycles. These restrictions tend to queue traffic on El Camino Real.

6.2.2 What Tomorrow Could Be Like

TPC conducted several tests of future traffic within the downtown area. With the buildout of the area and provision of mitigation, the effect will be to increase the peak period from 1 and 1/2 hours to 2 and 1/2 hours. In other words, the time during which level of service "F" will be experienced within the critical downtown intersections would be extended by an additional hour. The projected demand to capacity ratio at El Camino Real and Ralston Avenue is estimated to change from 100 percent to 133 percent when the buildout of the downtown occurs. Moreover, there are plans to increase the frequency of the Caltrain service. The increase in service will further restrict traffic flows within the El Camino Real and Old County Road intersections on Ralston Avenue. Today, 52 trips are made by Caltrans. Potentially, if Caltrans was extended to the East Bay terminal, demand could reach 106 trains per day. While most of these trains would augment off-peak and midday service, the frequency of trains in the peak hour could double. Under this condition, for 36% or 22 minutes of the peak hour, the traffic along Ralston could be interrupted. The average vehicle delay could reach 240 seconds, or 4 minutes. The decrease in the service level noted above is generated by the change in traffic due to growth within the downtown only, no provision for traffic growth outside of the study area or as a result of other growth within Belmont or other portions of the Peninsula have been taken into account.

The practical way to view the projected levels of future traffic within the downtown requires an understanding of vehicle delay. Once an intersection reaches capacity, it can not serve additional vehicles. Therefore, at a volume-to-capacity ratio of 1.00 (or 100 percent), the intersection is saturated. With additional demand (projected volumes of traffic per hour above the intersections capacity), substantial delay is introduced and the peak hour traffic condition is extended into adjacent hours. In other words, when an intersection reaches capacity, the level of service is "F". With the additional demand of more traffic, the peak hour condition is not worsened. Rather the length of time, or peak period, that the congestion occurs is extended.

6.2.3 Mitigating Peak Period versus Peak Hour Traffic at Ralston and El Camino Real

Three options appear available for mitigating the intersection at El Camino Real and Ralston Avenue. These include: 1) widening El Camino Real and Ralston Avenue to 6 travel lanes; 2) grade separating portion of the Ralston Avenue traffic flows with the Southern Pacific Railroad tracks, and 3) grade separating the Southern Pacific tracks and Ralston Avenue. Each of these options provides specific benefits to the downtown intersections.